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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,833	02/13/2002	Jean-Yves Le Naour	PF010013	9013

7590 07/19/2004

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EXAMINER	
LE, NHAN T	
ART UNIT	**PAPER NUMBER**
2685	

DATE MAILED: 07/19/2004 5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/075,833	Applicant(s) LE NAOUR ET AL.	
	Examiner Nhan T Le	Art Unit 2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-7 and 9-11* is/are rejected.

7)☐ Claim(s) *4,8 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 2, 5, 6, 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi et al (US 6,236,848) in view of Takagi (US 6,226,504).

As to claims 1, 5, 9, Igarashi teaches a method of automatic control of the gain in a radio frequency signal reception device, the device comprising at least one first low-noise amplification stage placed following a reception antenna (see fig. 4, number 109, col. 1, lines 26-30), and at least one variable-gain device placed in the reception facility (see fig. 4, number 114, col. 1, lines 36-40), characterized in that the adjustment of the gain until a predetermined noise level is obtained at the end of the reception facility (see fig. 4, numbers 116, 117, col. 1, lines 42-54). Igarashi fails to teach a neutralization method of the signal received by the antenna. Takagi teaches a neutralization method of the signal received by the antenna (see col. 3, lines 4-24, 53-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Takagi into the system of Igarashi in order to control power supply to low noise amplifier.

As to claims 2, 6, 10, the combination of Igarashi and Takagi also teaches the method according to claim 1, characterized in that the neutralization of the signal

received is carried out by cutting off the supply to the first low-noise amplification stage (see Takagi col. 3, lines 53-67).

2. Claims 3, 7, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi et al (US 6,236,848) in view of Takagi (US 6,226,504) and further in view of Kato (US 5,199,045).

As to claims 3, 7,11, the combination of Igarashi and Takagi fails to teach the method according to one of claims 1, characterized in that, during signal reception, the following steps are performed: extraction of the noise power at the end of the reception facility, adjustment of the gain until a predetermined noise level is obtained. Takagi teaches the method according to one of claims 1, characterized in that, during signal reception, the following steps are performed: extraction of the noise power at the end of the reception facility, adjustment of the gain until a predetermined noise level is obtained (see fig. 4, number 19, col. 4, lines 38-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Kato into the system of Igarashi and Takagi in order to control the gain of variable amplifier.

Allowable Subject Matter

Claims 4, 8, 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 4, the applied reference fails to teach the methods of sampling and digitization of the signal at the end of the reception facility; digital demodulation of the

digitized signal; modulation of the demodulated signal; calculation of the noise power from the modulated signal and the digitized signal as cited in the claim.

As to claims 8, 12, the applied reference fails to teach the device with means of sampling and means of converting the signal at the end of the facility into a digitized signal; means for performing the digital demodulation of the signal and for obtaining a demodulated signal; digital modulation means for modulating the demodulated signal and obtaining a modulated signal; means for calculating the noise power from the modulated signal and the digitized signal as cited in the claim.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kamgar et al (US 6,324,387) teaches LNA control circuit for receiving closed loop automatic gain control.

Nagano et al (US 6,011,980) teaches wireless telecommunication equipment.

Brueske et al (US 6,228,609) teaches gain controllable low noise amplifier with automatic linearity enhancement and method of doing the same.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T Le whose telephone number is 703-305-4538. The examiner can normally be reached on 08:00-05:00 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

N. Le

Nhan Le

PABLO N. TRAN
PRIMARY EXAMINER

AU2685